

### Abstract

The invention relates to a method for accurately positioning a patient for radiotherapy and/or radiosurgery, comprising the following steps: the patient is pre-positioned as accurately as possible with respect to a linear accelerator; at least two x-ray images of the patient and/or one of the parts of his body in the vicinity of the radiation target point are produced from different respective recording angles on a single image recorder; the x-ray image is spatially localised; at least one reconstructed image, corresponding to each x-ray image and deriving from a three-dimensional patient scan data set, is produced, the reconstructed images containing the desired image contents of the x-ray images when the patient is correctly positioned; and the real x-ray images are superimposed, and the positioning error is determined electronically and/or with computer guidance by way of particular landmarks and/or the intensity gradient or the contours in the two images; and the position of the patient is corrected by way of the determined positioning error.